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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,455	12/26/2001	Takayoshi Oyamada	0649-0814P	2939

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EXAMINER

CHEA, THORL

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/025,455

Applicant(s)

OYAMADA ET AL.

Examiner

Thorl Chea

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-13 are rejected under 35 U.S.C. 103(a) as obvious over the combination of EP1004930 (EP'930), Matsumoto et al (Matsumoto) and Hayashi et al (US Patent No. 4,273,723). The EP'930 discloses a photothermographic material containing non-photosensitive organic silver salt grain similar to that of the claimed invention. The grain having aspect ratio (AR) of at least 3; the average of the average grain diameter of 0.01 to 0.8  $\mu\text{m}$ ; the average of the needle ratio of said grain measure from the principal plane direction (Needle ratio =  $(M \times L) / (W \times T)$ ) is not less than 1.1 and less than 10 (page 3, and page 4). On page 5, paragraph [0052 to 0053], the silver behenate, silver arachidate, and/or silver stearate are preferred organic silver salt. Matsumoto in column 17 lines 10-15 discloses "silver behenate is the most preferred in terms of whiteness and light stability. Silver behenate also has excellent moisture resistance, and can be used in combination with a reducing agent having a relatively weak reducing ability". Hayashi et al in column 6, Example 1 the purity of silver behenate product as extremely high as 98.1 %.

It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to would have selected silver behenate having grains structure within the scope taught in EP'930 to provide the non-photosensitive organic silver salt grains claimed in the

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present claimed invention. The worker of ordinary skill in the art would have selected the silver behenate of because of its excellent moisture resistance and the its having a relatively weak reducing ability recognized in Matsumoto with the high purity known in Hayashi et al and the non-photosensitive organic silver salt having grains structure taught in EP'930 provides photothermographic material with high sensitivity, reduced image defects as well as low fog.

The limitation of claims 6-8 are related to the claiming of a material by a process. "(E)ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same or obvious from a product of prior art, the claim is unpatentable even though the prior art product was made by different process." In re Thorpe 777 F.2d 695, 698, 227 USPQ 694, 966 (Fed. Cir. 1985).

3. Claims 1-13 are rejected under 35 U.S.C. 103(a) as obvious over the combination of EP0962812 (EP'812), Matsumoto et al (Matsumoto), and Hayashi et al (US Patent No. 4,273,723).

4. EP'812 discloses a heat-developable material containing having fatty acid silver salt particle having the average equivalent-sphere diameter from 0.1 to 0.8  $\mu\text{m}$ ; the average ratio of long sides/short sides in main planes of 1 to 4; the aspect ratio of 2 to 30. The preferred aliphatic carboxylic acids include cerotic acid, lignoceric acid, behenic acid, erucic acid, arachidic acid, stearic acid, ....camphoric acid and mixture thereof. See page 5, paragraph [0035]. The preparation of silver behenate is shown on page 25-26, especially Table 2. The material having one or more layer is shown on page 21, paragraph [0187]. Matsumoto in column 17 lines 10-15 discloses that "silver behenate is the most preferred in terms of whiteness and light stability.

Silver behenate also has excellent moisture resistance, and can be used in combination with a reducing agent having a relatively weak reducing ability". Hayashi et al in column 6, Example 1-2 discloses the purity of silver behenate product as extremely high as 98.1 %.

It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to would have selected silver benchenate having grains structure within the scope taught in EP'930 to provide the non-photosensitive organic silver salt grains claimed in the present claimed invention. The worker of ordinary skill in the art would have selected the silver behenate having high purity taught in Hayashi et an because of its excellent moisture resistance and the its having a relatively weak reducing ability recognized in Matsumoto and the non-photosensitive organic silver salt having grains structure taught in EP'930 provides photothermographic material with high sensitivity, reduced image defects as well as low fog.

The limitation of claims 6-8 is related to the claiming of a material by a process. "(E)ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same or obvious from a product of prior art, the claim is unpatentable even though the prior art product was made by different process." In re Thorpe 777 F.2d 695, 698, 227 USPQ 694, 966 (Fed. Cir. 1985).

#### ***Response to Arguments***

5. Applicant's arguments filed July 13, 2004 have been fully considered but they are not persuasive because of the reason set forth in the Final Office Action on January 14, 2004. It has been known in the prior art of record such as Matsumoto et al (Matsumoto) that "silver behenate is the most preferred in terms of whiteness and light stability. Silver behenate also has excellent

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moisture resistance, and can be used in combination with a reducing agent having a relatively weak reducing ability, and known in Hayashi et al (US Patent No. 4,273,723) to produce silver behenate having high purity as extremely high as 98.1 %, and 99.3 %. The worker of ordinary skill in the art at the time the invention was made would have formed silver salt of an organic crystal including silver most preferred behenate having high purity taught in Hayabashi et al, and thereby provide the invention as claimed. The silver behenate in Hayabashi in column 6, Example 1 contains no silver stearate which is within meaning of substantially no silver stearate claimed or silver arachidate content of 6 mol % or less per mole of non-photosensitive organic silver salt within the scope claimed in the present claimed invention. The behenic acid, stearic acid, and arachic acid belong to known aliphatic acid (fatty acid) known to be used in the production of silver behenate, silver stearate and silver arachidate, and it has been known in Matsumoto that the silver behenate is the most preferred one because of its improved property such as shown above, and it would have been understood by the worker of ordinary skill in the art that the use of the silver behenate in combination with other groups such as silver stearate and silver arachidate would be undesirable.

The Declaration under 37 CFR 1.132 on October 31, 2003 fails to overcome the established prima facie case of obviousness set forth above. The scope of the claimed invention (claim 1) encompasses non-photosensitive organic silver grains that has 1. substantially no silver stearate; 2. a length/width ratio of 1-9; 3. an aspect ratio 1.1 to 30; 4. an equivalence sphere diameter of 0.05 to 1 micron; 5. a content of silver behenate that is 90 to 100 mol % per mol of the non-photosensitive organic silver salt; and the claimed invention claims 2 which encompasses "encompasses non-photosensitive organic silver grains that has 1. silver stearate content of 1

mole % or less per mole of the non-photosensitive organic silver salt ; 2. a length/width ratio of 1-9; 3. an aspect ratio 1.1 to 30; 4. an equivalence sphere diameter of 0.05 to 1 micron; 5. the non-photosensitive organic silver salt grain has a silver arachidate of 6 mole % or less per mol of the non-photosensitive organic silver salt grains, and 6. a content of silver behenate that is 90 to 100 mol % per mol of the non-photosensitive organic silver salt. It is improper to use of a single mole % (98 mol %) value or single value of the dimension of the grain to determine the results of within the scope of the claimed invention. The applicants offer no basis in technical reasoning and/or objective evidence to support the conclusion that the demonstrated results can be extrapolated to non-photosensitive organic silver salt grains encompassed by the scope of the claimed invention. Therefore, the probative value of the evidence is not commensurate with the degree of protection sought. In re Kulling, 897 F.2d 1147, 14 USPQ2d 1056 (Fed. Cir. 1990); In re Grasselli, 713 F.2d 731, 218 USPQ 769 (Fed. Cir. 1983); In re Landgraf, 436 F.2d 1046, 168 USPQ 595 (CCPA 1971). “Moreover, for a showing of “unexpected results” to be probative evidence of nonobviousness, the applicant has the burden of establishing that the differences in results between the examples compared are of practical significance and would have been unexpected to one skilled in the art. In re D’Ancicco, 439 F. 2d 1244; 169 USPQ 303 (CCPA 1971); In re Klosak, 455 F. 2d 1077, 173 USPQ 14 (CCPA 1972); In re Juilllard, 476 F. 2d 1380, 177 USPQ 570 (CCPA 1973).

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

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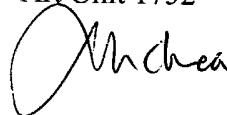
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly can be reached on (571)272-1526. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1700.

Tchea *tm*  
November 12, 2004

Thorl Chea  
Primary Examiner  
Art Unit 1752

A handwritten signature in black ink, appearing to read "Thorl Chea", written over the printed name and title.